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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,368	01/30/2004	Roger F. Buelow II	2497	6538

7617 7590 01/13/2006

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EXAMINER

CHOI, JACOB Y

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/768,368

Applicant(s)

BUELOW ET AL.

Examiner

Jacob Y. Choi

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

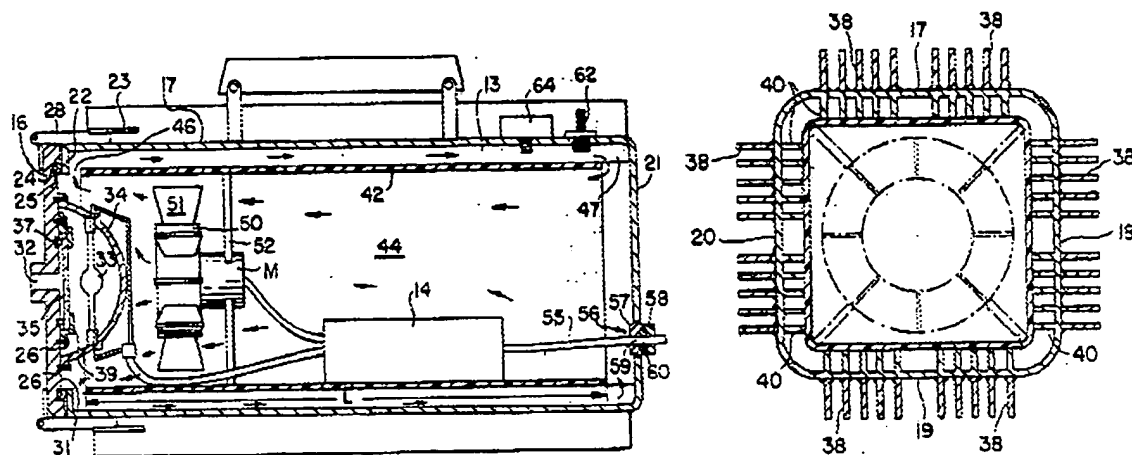
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koo (USPN 4,419,716) in view of Tobias et al. (USPN 5,432,688).

Regarding claims 1, 21, & 27, Koo discloses a light appliance (33, 34), a sealed vapor proof enclosure ("a sealed vapor proof housing assembly"; Abstract) for the light appliance (33, 34) that gives off unwanted heat into surrounding air within the enclosure (12) during operation, the enclosure (12) having an external wall (17-20) at least part of which is thermally conductive (38), a medium ("ambient atmosphere"; Abstract) that is in contact with the external wall of the enclosure, the medium having adequate thermal conductivity, and being sufficiently cooler than the external wall of the enclosure that cooler than the external wall (17-20) of the enclosure (12), an electrical driver (Figure 4, 14) comprising an electrical or electromagnetic device for converting voltage and limiting current to the light appliance, and an air circulating device (50) for circulating air, heated by the light appliance (12) or by the air circulating device (50), to the thermally conductive portion of the external wall (16-20) for removing sufficient heat from the air

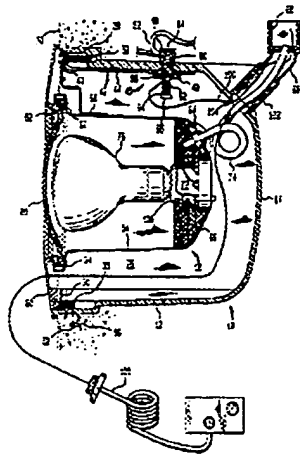
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by thermally dissipating the heat into the cooler medium through the thermally conductive portion so as to substantially increase lifetime of the light appliance.



Koo failed to disclose the liquid-tight enclosure.

Tobias et al. teaches the light fixture assembly having the liquid-tight enclosure (e.g., column 3. lines 40-55; "... the shell 54 of the light fixture 18 is sealed by virtue of a lens plate 80 and a gasket 82, which cooperate to prevent water from entering the shell 54. In addition, a cable seal 84 is provided to prevent water from entering the shell 54 at the point of entry of the power cable 74 ..." & "... a space 76 between the interior surface of the housing 12 and the shell 54 of the lighting fixture 18 accommodates water which serves to cool the lighting fixture 18 when it is heated by an incandescent bulb 78 ...").



It would have been obvious to one of ordinary skill in the art at the time of the invention to modify a sealed vapor proof enclosure of Koo with the liquid-tight enclosure of Tobias et al. to utilize the apparatus in more versatile environment to prevent any damages to the electrical components inside the enclosure. The following modification would achieve the enclosure to be further protected against any water damage.

Note: claims in a pending application should be given their broadest reasonable interpretation. In re Pearson, 181 USPQ 641 (CCPA 1974).

In order to be given patentable weight, a functional recitation must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. In re Fuller, 1929 C.D. 172; 388 O.G. 279.

Regarding claims 2-7, 9, & 22, Koo in view of Tobias et al. disclose the claimed invention, explained above. In addition, Koo discloses the claimed invention except for specific other well known light sources.

Koo teaches that the lamp may represent any conventional source of light source as an ultraviolet mercury lamp (column 2, lines 55-55).

Koo does not specifically mention any other well known light sources.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize any conventional source of its kind, as taught by Koo in order to benefit from wide range of lighting characteristics.

Regarding claim 8, Koo in view of Tobias et al. disclose the claimed invention, explained above. In addition, Koo discloses the light appliance further comprises a heat sink (38) for removing heat from the light appliance.

Regarding claim 10, Koo in view of Tobias et al. disclose the claimed invention, explained above. In addition, Koo discloses the light appliance further comprises a heat sink for removing heat from the source.

Regarding claim claims 11-15, 33 & 34, Koo in view of Tobias et al. disclose the claimed invention, explained above. In addition, Koo discloses the claimed invention except does not specifically mention what the medium may be.

Koo discloses the "vapor proof housing assembly" to be used in an airplane hanger or mine filed for a typical example in which the ambient atmosphere may be (column 1, lines 5-20).

In addition, Tobias et al. teaches the medium may be ground (e.g., 70) and water (e.g., column 3. lines 45-55; "*... a space 76 between the interior surface of the housing 12 and the shell 54 of the lighting fixture 18 accommodates water which serves to cool the lighting fixture 18 when it is heated by an incandescent bulb 78 ...*").

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the device of Koo any useful environment and the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. The prior art structure is capable of performing the use in some useful environment such as ground, air, & water (especially with provided obvious reasons above with reference Tobias et al.).

Regarding claim 16, Koo in view of Tobias et al. disclose the claimed invention, explained above. In addition, Koo discloses the air-circulating device comprises an electrical fan.

Regarding claim 17, Koo in view of Tobias et al. disclose the claimed invention, explained above. In addition, Koo discloses the air-circulating device comprises a heat pump or an air pump.

Regarding claims 18-20, 24-26, & 30-32, Koo in view of Tobias et al. disclose the claimed invention, explained above. In addition, Koo discloses the claimed invention except for the specific material for the thermally conductive wall.

Koo teaches the fins are preferably arranged in a complimentary fashion in the exterior and preferably aluminum welded to the side walls (e.g., column 3, lines 5-25).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize well known material such as stainless steel or glass for the

light extracting side walls, since it has been held to be within the general skill of a worker in the art to select a known material on the basis its suitability for the intended use as a matter of obvious design variation. In re Leshin, 125 USPQ 416.

Regarding claim 23, Koo in view of Tobias et al. disclose the claimed invention, explained above. In addition, Koo discloses the claimed invention, explained above. In addition, Koo discloses the light appliance further comprises a heat sink for removing heat from the lamp.

Regarding claim 28, Koo in view of Tobias et al. disclose the claimed invention, explained above. In addition, Koo discloses the light appliance comprises a filament-ed lamp or a high intensity gas discharge lamp.

Regarding claim 29, Koo in view of Tobias et al. disclose the claimed invention, explained above. In addition, Koo discloses the light appliance further comprises a heat sink for removing heat fro the lamp.

Response to Amendment

3. Examiner acknowledges that the applicant has amended independent claims 1, 21 & 27 to further limit the claim with "a liquid-tight enclosure". Claims 33 & 34 are added. Currently, claims 1-34 remain in the application.

Response to Arguments

4. Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's remark, claims 1-34 are now rejected under 35 U.S.C. 103(a) as being unpatentable over Koo (USPN 4,419,716) in view of Tobias et al. (USPN 5,432,688) where the prior art reference Koo lacks teachings of the liquid-tight enclosure. Applicant is reminded that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Y. Choi whose telephone number is (571) 272-2367. The examiner can normally be reached on Monday-Friday (10:00-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JC



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